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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/812,545

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Bruce D. Melick

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07/10/2008

MCKEE, VOORHEES & SEASE, P.L.C.

801 GRAND AVENUE

SUITE 3200

DES MOINES, IA 50309-2721

EXAMINER

SEDIGHIAN, REZA

ART UNIT

PAPER NUMBER

2613

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/812,545	Applicant(s) MELICK ET AL.	
	Examiner M. R. Sedighian	Art Unit 2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,21,22,38,45-47,49,50,58,62-64 and 67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,21,22,38,45-47,49,50,58,62-64 and 67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. This communication is responsive to applicant's 4/7/08 amendments and remarks. The amendments have been entered. Claims 1, 3-4, 21-22, 38, 45-47, 49-50, 58, 62-64, and 67 are now pending.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1, 3-4, 21, 38, 45-47, 49-50, 58, 62-64, and 67 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3 and 7-10 of copending Application No. 10/967,859. Although the conflicting claims are not identical, they are not patentably distinct from each other because both application claim a method of transmitting data, the method comprising: receiving a plurality of bits of data from a memory unit; transforming the bits of data into an ultra wideband pulse having pulse characteristics selected from a set of at least three or more predetermined pulse characteristics,

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one of which corresponds to the plurality of bits of data; transmitting the ultra wideband pulse over a guided medium to a receiver, wherein the pulse characteristics corresponds to numbers 0 through 9.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. Claims 1, 3, 21-22, 38, 45, 47, and 58 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 5-9, 11, 13, 15, 16, and 19 of U.S. Patent No. 7,376,357. Although the conflicting claims are not identical, they are not patentably distinct from each other because both application claim a method of transmitting data using pulse transmission comprising: transforming a plurality of bits of data into an ultra wideband pulse, the ultra wideband pulse having a pulse duration, assigning an ultra wideband pulse duration to each of the plurality of bits of data, and transmitting the ultra wideband pulse, wherein the plurality of bits corresponds to number symbols 0 through 9.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 21-22, 38, 46-47, 50, and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dress, Jr. et al. (US Patent No: 6,603,818 B1).

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Regarding claims 21, 38, 47, and 58, Dress teaches a method of transmitting data (col. 1, lines 15-20), comprising: receiving bits of data from a memory unit (col. 10, lines 59-67); transforming (1250, fig. 12) a plurality of the bits of data (col. 7, lines 21-35, Multiple Bits Per Symbol) into an ultrawideband pulse (col. 11, lines 41-47), the ultra wideband pulse having a pulse duration corresponds to the bits of data (col. 1, line 28, the generated pulses each have its pulse duration); and transmitting (1290, fig. 12) the ultra wideband pulse over a guided medium (the generated pulses are propagating over guided mediums to antenna 1290, as it is shown in fig. 12) to a receiver (1400, fig. 14) without using a carrier signal to transmit the ultra wideband pulse (col. 10, lines 51-67, col. 11, lines 1-18). Dress differs from the claimed invention in that Dress does not specifically disclose generating a set of ten predetermined pulse durations, one of which corresponds to the bits of data. However, it is well known that a pulse generator such as pulse generator 1250 of Dress can generate pulses of different durations. Dress discloses transmission of multiple data bits by utilizing specific and adjustable pulse shapes (see abstract, col. 3, lines 26-31). Dress further discloses its invention allows both the bandwidth and position in frequency of an individual pulse to be determined (col. 5, lines 60-63). Dress also discloses generation and transmission of pulses of longer durations (col. 3, lines 55-67, col. 5, lines 64-67). Accordingly, it would have been obvious to a person of ordinary skill in the art at the time of invention that the data pulse signal generation and transmission system of Dress can generate pulses of different durations, or pulses of ten predetermined pulse durations, to transmit a plurality of different data signals and to increase the transmission information rate to allow a more versatile architecture (Dress, col. 3, lines 26-35). As to claim 47, Dress further discloses

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transforming a plurality of bits of data into a monocycle ultra wideband pulse having a pulse position (col. 5, lines 60-63, col. 6, line 65, col. 15, lines 15-32, col. 16, lines 1-2).

Regarding claims 46 and 50, Dress further discloses receiving (1400, fig. 14) the ultra wideband pulse from the guided medium at the receiver (col. 11, lines 40-46); and transforming the ultra wideband pulse into the plurality of bits of data corresponding to the durations of the ultra wideband pulse (col. 11, lines 45-67, col. 12, lines 1-13).

Regarding claim 22, Dress further discloses the transmitting pulse can be a pulse of light that can be transmitted over a fiber optic cable (col. 2, lines 10-12).

7. Claims 45 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dress, Jr. et al. (US Patent No: 6,603,818 B1) in view of Campana, Jr. (US Patent No: 6,98,783 B1).

Regarding claims 45 and 49, Dress differs from the claimed invention in that Dress does not specifically disclose data is in the form of universal character encoding. However, it is well known to transmit characters as signal transmission pulses. For example, Campana discloses the transmission of information in a series of characters by using pulse width modulated signals (col. 51, lines 9-14). As it is taught by Campana and as it is well known, it would have been obvious to a person of ordinary skill in the art at the time of invention that a data transmission system such as the one of Dress can transmit data that is in the form of universal character, as signal transmission pulses to transmit different characters or texts.

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8. Applicant's arguments filed on 4/7/08 with respect to claims 1 and 62 have been considered but are moot in view of the new ground(s) of rejection. However, applicant's arguments with respect to claims 21, 38, 47, and 58 have been fully considered but they are not persuasive.

As to claims 21, 38, 47, and 58, Dress teaches a method of transmitting data (col. 1, lines 15-20) that comprises of receiving bits of data from a memory unit (col. 10, lines 59-67), transforming a plurality of the bits of data (col. 7, lines 21-35, Multiple Bits Per Symbol) into an ultra wideband pulse (col. 11, lines 41-47 and 1250, fig. 12) having a pulse duration corresponds to the bits of data (col. 1, line 28, the generated pulses each have its pulse duration), and transmitting (1290, fig. 12) the ultra wideband pulse over a guided medium to a receiver (1400, fig. 14) without using a carrier signal to transmit the ultra wideband pulse (col. 10, lines 51-67, col. 11, lines 1-18). As to generating a set of ten predetermined pulse durations, it is well known that a pulse generator, such as pulse generator 1250 of Dress, can generate pulses of different durations. Dress discloses transmission of multiple data bits by utilizing specific and adjustable pulse shapes (see abstract, col. 3, lines 26-31). Dress also discloses generation and transmission of pulses of longer durations (col. 3, lines 55-67, col. 5, lines 64-67). Accordingly, it would have been obvious to a person of ordinary skill in the art data pulse signal generation and transmission system of Dress can generate pulses of different durations, or pulses of ten predetermined pulse durations, to transmit a plurality of different data signals to increase the transmission capacity of the system.

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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. R. Sedighian whose telephone number is (571) 272-3034.

The examiner can normally be reached on 9 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. R. Sedighian/

Primary Examiner, Art Unit 2613